

New patent claims

1. An electronically commutated motor for a fuel pump, comprising a rotor which is connected to a shaft in a rotationally fixed manner and has a plastic-bonded ferrite, characterized in that the rotor (1) has a fuel-resistant shaped body (6) which is formed by the plastic-bonded ferrite (4), and in that a magnetic return element (14) which can be adjusted in relation to the shaped body (6) by being moved on the shaft (2) is provided, with the shaped body having an axial recess (12) in which the return element (14) engages, with the axial recess (12) having an opening side (13) and a base side (20) which is situated opposite the opening side (18) and at which the shaped body (6) is connected to the shaft (2), and with the axial recess (12) forming a funnel (22) which widens conically toward the opening side (18), and in that the return element (14) forms a cone (24) which tapers toward the base side (20) of the recess (12).

2. The motor as claimed in claim 1, characterized in that the opening angle ( $\alpha$ ) of the funnel (22) corresponds to the cone angle ( $\beta$ ) of the cone (24).

3. The motor as claimed in either of the preceding claims, characterized in that the plastic which bonds the ferrite (4) is polyphenylene sulfide.

4. The motor as claimed in one of the preceding claims, characterized in that the shaped body (6) has stabilizing fiber material.

5. The motor as claimed in one of the preceding claims, characterized in that the shaped

body (6) is injection molded onto the shaft (2), and in that, in a connecting region (8) between the shaft (2) and the shaped body (6), the shaft (2) has a pattern (10) which increases its surface roughness.

6. The motor as claimed in one of the preceding claims, characterized in that the return element (14) can be adjusted in relation to the shaped body (6) by being moved on the shaft (2).